

Specifications for Fuel Island

Olympic Region Headquarters

1. General:

- a. The refueling Island shall have above ground storage tanks, pumps, piping, dispensers, hoses, nozzles and other system hardware that are compatible with automotive fuels.
- b. Storage tanks shall be doubled walled fiberglass with brine between the tank walls, with a pressurized dispensing system, pump sumps, spill buckets on fill tubes and overfill protection system. Sump and access covers shall be sealed to prevent water from entering the sumps.
- c. All piping from tanks to dispensers shall be double walled with secondary containment draining back into the pump sumps.
- d. The tank installation shall conform to all federal and state regulations to include those of the local air quality authority.
- e. Tanks and tank filler tubes shall be located in such manner to allow vehicle refueling to occur while the station is receiving bulk fuel and have an easy ingress and egress for the delivery truck.
- f. Product tank sizes shall be determined base on 30-day supply and one delivery per month. See paragraph 2 below for current usage information.
- g. Emergency diesel generator power shall provide backup power.

2. Current station product usage based on calendar 2005 history:

- a. Annual through-put (gallons dispensed)
 - i. Regular Unleaded Gasoline – 252, 000 Gallons
 - ii. Diesel - 78,500 Gallons
 - iii. Ethanol (E85) is estimated at 60,000 Gallons and will displace a portion of the regular unleaded gasoline however, not on a gallon-to-gallon basis.
- b. Month through-put (gallons dispensed)
 - i. Regular Unleaded Gasoline – 21,000 Gallons
 - ii. Diesel – 6500 Gallons
 - iii. Ethanol (E85) is estimated at 5,000 Gallons and will displace a portion of the regular unleaded gasoline however, not on a gallon-to-gallon basis.
- c. Refueling Transaction activity:
 - i. Number of individual refueling transactions per year – 24,000
 1. Unleaded Gasoline – 21,600
 2. Diesel – 2,400
 3. Ethanol – 1,800 (estimate)
 - ii. Number of individual refueling transactions per month – 2,000
 1. Unleaded Gasoline- 1,800
 - a. Average Gallon per refueling transaction – 12

- b. Averaged time to refuel at the dispenser – 4 minutes at maximum pump output 10gpm. Does not include any waiting in the queue line.
 2. Diesel – 200
 - a. Average refueling transaction – 30 Gallons
 - b. Average time to refuel at the dispenser - 4 minutes at maximum pump output 18gpm. Does not include any waiting in the queue line.
 3. Ethanol – 150 (estimate) while gallons and refueling time would be the same as unleaded gasoline.
 - iii. Number of after hours refueling transactions per month –332 and are included in the totals.
 3. Fuel Island shall have:
 - a. A smooth, easy and safe traffic flow to and from the refueling island accommodating light vehicles (sedans and picks) and heavy vehicles (58,000 GVW trucks towing equipment trailers) up to 60 feet in overall length.
 - b. Three (3) products, diesel fuel, regular unleaded gasoline and ethanol (E85), available for refueling vehicles.
 - c. Be capable of refueling six vehicles at once, two (2) for each product.
 - d. Dispenser hoses and nozzles shall be long enough to refuel both sides of the vehicle without moving the vehicle to a new position.
 - e. Provide a Card Reader Booth (Kiosk) on the island for the card reader and telephone and LAN connections points. Current style of Kiosk are 3'-1" x 4'-8" x 8' with a sliding exterior door and a 2'-6" and 3'-6" windows.
 - f. Island equipment cover approximately 4' wide 8'-4" high running the length of the island over the top of the kiosk and may rest on the kiosk.
 4. Fuel Island Card Reader (Card Lock Credit Card Reader):
 - a. The card reader system must be a PetroVend System 2 (WSDOT) to be compatible with WSDOT's current fuel management system. Note: It is important when ordering the card reader and associated components that the designation "System 2 (WSDOT)" to be used, this denotes the reader has custom firmware for WSDOT.
 - b. Presently WSDOT is considering a new card reader system. System testing will begin in February 2006, with a final decision in 2007. The replacement card reader will require the same number of electrical conduits, telephone and LAN connections.
 5. Fuel Island Leak Monitoring Equipment:
 - a. The monitoring system shall be a current model of the Veeder Root TLS 350 tank monitoring system.
 - b. The TLS 350 Must be capable of monitoring tank and piping interstitial space, electronic line leak device, perform tank and line tightness tests, tanks product levels, maintain delivery information date, time, beginning level and ending level in both inches and gallons.